ABSTRACT

A method for thermal insulation comprises positioning a gel formed between an insulating liquid base, which may or may not be a phase change material, and at least one gelling agent comprising at least one polysiloxane, which may or may not be modified, and in situ cross linking of the gelling agent, optionally in the presence of at least one compatibilizing agent. More particularly, it is used to insulate a flowline or a pipeline, in particular for ultradeep operations at temperatures of 2°C to 200°C. Cross-linkable formulations, the various cross-linking processes and the insulating gels obtained are described.

The present invention relates to the field of thermal insulation materials, in particular for exploitation and transport of effluents produced by an oil field.

It concerns a thermal insulation method characterized in that it comprises positioning a gel formed between an insulating liquid base, which may or may not be a phase change material, and at least one gelling agent comprising at least one polysiloxane, which may or may not be modified, and in situ cross linking of the gelling agent, optionally in the presence of at least one compatibilizing agent. The term "in situ" as used in the present description means that gel formation (cross-linking) conditions are applied after the formulation giving rise to the gel has been positioned in the space in which the gel is to exert its insulating effect.